

# Agilent 5100 Series ICP-OES Consumables Ordering Guide



This Ordering Guide provides an illustrated listing of the consumables used with the new Agilent 5100 SVDV/VDV and RV ICP-OES models. Many of the consumables used with this instrument are subtly different and there are also some innovative new differentiators (such as the Easyfit proprietary torch design).

This illustrated listing should enable you to easily identify any consumables that are required and assist you with customer inquiries and requests for quotation.

In case of any query, please contact your local Product Specialist before quoting.

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Part Number	Description		
Peristaltic Pum	Peristaltic Pump Tubing		
3710034400	Pump tubing, PVC, white/white tabs, for acidic samples (pk/12 tubes)		
3710034600	Pump tubing, PVC, blue/blue tabs, for acidic waste (pk/12 tubes)		
3710046900	Pump tubing, PVC, orange/white tabs, for internal standard (pk/12 tubes)		
3710044200	Pump tubing, Marprene, white/white tabs, for semi-volatile organic samples (pk/12 tubes)		
3710044400	Pump tubing, Marprene, blue/blue tabs, for semi-volatile organic waste (pk/12 tubes)		

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Part Number	Description
3710043700	Pump tubing, Viton, white/white tabs, for volatile organic samples (pk/12 tubes)
3710043900	Pump tubing, Viton, blue/blue tabs, for volatile organic waste (pk/12 tubes)
3710034800	Pump tubing, SolvaFlex, black/black tabs, for HF digested samples (pk/12 tubes)
3710035200	Pump tubing, SolvaFlex, gray/gray tabs, for HF waste (pk/12 tubes)

The listings above cover the standard pump tubing either supplied with the instrument or included in the application kits.

# For other peristaltic pump tubing requirements:

Refer to the listings in the Spectroscopy consumables catalog (Agilent publication # 5991-1060EN) or the on-line Store (in the ICP-OES and MP-AES sections) at the following URLs:

http://www.chem.agilent.com/store/en\_US/Cat-SubCat2ECS\_30372/Peristaltic-Pump-Tubing and

http://www.chem.agilent.com/store/en\_US/LCat-SubCat2ECS\_30397/4100-Peristaltic-Pump-Tubing?navAction=push&navCount=3

Part Number	Description		
Nebulizers and	Nebulizers and Supplies for 5100 ICP-OES		
G8010-60255	SeaSpray glass concentric nebulizer, U-series, 1/pk. Supplied as standard with 5100 Series ICP-OES.  Recommended for routine analysis of most sample types except those containing HF or suspended particulates. Includes UniFit sample connector and EzyLok gas connector.		
G8010-60270	Conikal glass concentric nebulizer, U-series, 1/pk Recommended for routine analysis of most organic samples and samples with up to 5% TDS (without any large particulates). Includes UniFit sample connector and EzyLok gas connector		
2010126900	Inert OneNeb nebulizer, 1/pk The OneNeb is an inert, high efficiency nebulizer that uses unique flow blurring nebulization for aerosol production. It is virtually unblockable and tolerant to most sample types.  Recommended for high sensitivity applications, routine analysis of most organic samples, high TDS samples (with particle sizes < 75 microns) and HF digests. Includes connector for sample capillary and EzyLok gas connector.		

Part Number	Description
G8010-80035	Sample connector (UniFit) for U-Series glass concentric nebulizer used with 5100 DV ICP-OES, 10/pk.  Fitted with 0.75 mm id x 700 mm length capillary tubing. Connects the peristaltic pump tubing for the sample line to the nebulizer.
G3266-80012	Sample connector (UniFit), 0.5mm id x 700 mm, 10/pk. Fitted with narrower bore 0.5 mm id x 700 mm length capillary tubing. Suits the U-Series nebulizer used with the 5100 DV ICP-OES.
2410020500	Nebulizer capillary tubing, per m.  Joins to the peristaltic pump tubing for the sample line and used to extend the
	sample line to enable sample to be drawn from a container.
0890-2603	PFA tubing for gas supply to nebulizer Connects to gas outlet on ICP instrument. Tubing dimensions: 3mm id x 4mm od, per metre.

Part Number	Description
Spray Chambe	ers and Supplies for 5100 ICP-OES
G8010-60256	Double pass glass cyclonic spray chamber. Supplied as standard with 5100 Series ICP-OES.  Includes Helix nebulizer seal, ball joint socket and UniFit drain outlet. For use with organic solvents, high matrix or high TDS samples.
	Agilent Technologies
G8010-60271	Single pass glass cyclonic spray chamber Includes Helix nebulizer seal, ball joint socket and UniFit drain outlet. For use with aqueous and low matrix samples where best sensitivity and lowest LODs are required.
G8000-70008	Inert single pass cyclonic spray chamber PTFE cyclonic design with Helix nebulizer seal, ball joint socket and UniFit drain outlet. For use with HF digests and high TDS samples.

Part Number	Description
G8010-80034	Inert double pass cyclonic spray chamber for 5100 ICP-OES PTFE cyclonic design with internal baffle, Helix nebulizer seal, ball joint socket and UniFit drain outlet. Includes torch clamp. For use with HF digests and high TDS samples.
G8010-80036	UniFit drain connector, 2.0mm od x 0.86 mm id, 3/pk.  Drain connector (UniFit) for spray chamber used with 5100 DV ICP-OES. Fitted with 480 mm length capillary tubing.
	Connects the peristaltic pump tubing for the waste line to the spray chamber outlet.
1610088600	Barb connector, 1/16" id to 1/8" id.  Used to connect the peristaltic pump tubing for the waste line to the drain tubing.  (Service (PL 8P) part).

Part Number	Description
3710024600	Drain tubing for spray chamber waste, 0.12" id x 0.062" thick, per m.  Used to take waste liquid from the peristaltic pump tubing to a suitable waste vessel.
3710033400	Drain tubing for spill tray, 1/4 in id, per m.  Attaches to spill tray on instrument. Allows liquid spills on sample tray to be drained to waste vessel.
G8010-40026	Clip to secure the drain tubing to the front of the sample tray.  Available from 1 <sup>st</sup> September 2014.
G8010-80042	Replacement Helix seal for ICP spray chamber, 4/pk. Suits any ICP spray chamber that uses the Helix fitting to secure the nebulizer in the side arm of the spray chamber.
G8010-80043	Replacement Helix locking screw for ICP spray chamber, 1/pk. Suits any ICP spray chamber that uses the Helix fitting to secure the nebulizer in the side arm of the spray chamber.

Part Number	Description
Torches for 5100 SVDV/VDV ICP-OES Systems	
The injector for separately.	or replacement in a demountable torch: the demountable torch is fixed into the torch base. This is not removable or replaceable as been damaged and needs replacement, a complete torch assembly will need to be
G8010-60228	Easy-fit torch one piece for 5100 DV ICP-OES Features a 1.8mm ID injector with an extended outer tube with slot for radial viewing (this is the standard torch for the instrument)
G8010-60236	Easy-fit demountable torch for 5100 DV ICP-OES Features a 1.8mm ID injector with replaceable extended outer tube with slot for radial viewing.
G8010-60232	Easy-fit demountable high solids torch for 5100 DV ICP-OES Features a 2.4mm ID injector with replaceable extended outer tube with slot for radial viewing. Recommended for high TDS samples using 5100 VDV ICP-OES
G8010-60233	Easy-fit demountable torch for semi-volatile organics with 5100 DV ICP-OES Features a 1.4mm ID injector with replaceable extended outer tube with slot for radial viewing. Recommended for semi-volatile organics using 5100 VDV ICP-OES

Part Number	Description
G8010-60231	Easy-fit inert demountable torch for 5100 DV ICP-OES Features a ceramic 1.8mm ID injector with replaceable extended outer tube with slot for radial viewing. Supplied with ball joint connection for torch base. Recommended for HF digests using 5100 DV ICP-OES

# Replacement tube set for DV Torches used with the 5100 SVDV/VDV ICP-OES Systems

# G8010-60263

Quartz outer tube set for 5100 DV ICP-OES, 1/pk
Tube set comprises extended outer tube with slot for radial viewing, intermediate tube (integrated into assembly) and top seal. Suits 5100 SVDV/VDV ICP-OES.



Part Number	Description
Torches for 51	00 RV (Radial) ICP-OES Systems
The injector for separately.	or replacement in a demountable torch: the demountable torch is fixed into the torch base. This is not removable or replaceable as been damaged and needs replacement, a complete torch assembly will need to be
G8012-60000	Easy-fit torch one piece for 5100 RV (radial) ICP-OES Features a 1.4mm ID injector with a shorter outer tube (no slot) for dedicated radial viewing (this is the standard torch for the radial instrument)
G8010-60237	Easy-fit demountable torch for 5100 RV (radial) ICP-OES Features a 1.4mm ID injector with a replaceable shorter outer tube (no slot) for dedicated radial viewing
G8010-60235	Easy-fit demountable torch for volatile organics with 5100 RV ICP-OES Features a 0.8mm ID injector with a replaceable shorter outer tube (no slot) for dedicated radial viewing. Recommended for volatile organics using 5100 RV (radial) ICP-OES

Part Number	Description
G8010-60234	Easy-fit inert demountable torch for 5100 RV (radial) ICP-OES Features a ceramic 1.8mm ID injector with a replaceable shorter outer tube (no slot) for dedicated radial viewing. Recommended for HF digests using 5100 RV (radial) ICP-OES
Replacement 1	Tube set for RV Torches used with the 5100 RV (radial) ICP-OES Systems
00040 00004	

# G8010-60264 Quartz outer tube set for 5100 RV ICP-OES, 1/pk Tube set comprises shorter length outer tube (no slot) for dedicated radial viewing and top seal. Suits 5100 RV (radial) ICP-OES.

# Miscellaneous Torch Supplies for 5100 DV/RV ICP-OES Systems

G8000-64140	Torch clamp Secures ball joint connector from the spray chamber to the torch. Used with 5100 ICP-OES and 4100/4200 MP-AES, 1/pk NOT suitable for use with the inert demountable torch.
G8010-60227	Torch clamp for inert demountable torch Secures ball joint connector from the inert spray chamber to the base of the inert torch. Used with 5100 ICP-OES, 1/pk NOT suitable for the standard demountable torch.

Part Number	Description
These kits can be the user to adapt (with inert comp	s for 5100 SVDV/VDV ICP-OES Systems be ordered with the instrument, but are also available as after-market items. These allow of the instrument to handle different applications. There are kits available for HF digests onents), semi-volatile organic solvents (such as ketone based solvents) and volatile is (such as gasoline).
G8010-68007	Inert sample introduction kit for 5100 DV ICP-OES 1/pk.  Recommended for use with HF digests.  Includes inert double pass spray chamber with ball joint socket, OneNeb nebulizer, Easy-fit torch inert demountable with ceramic injector (1.8mm ID), torch clamp for inert torch and SolvaFlex peristaltic pump tubes for sample (black/black tabs) and waste (gray/gray tabs).

Part Number	Description
G8010-68009	Semi-volatile organics sample introduction kit for 5100 DV ICP-OES 1/pk. Recommended for use with semi-volatile organic solvents incl. MIBK. Includes double pass glass cyclonic spray chamber with ball joint socket, Conikal nebulizer, demountable Easy-fit torch with 1.4mm ID injector, solvent resistant drain tubing and Marprene peristaltic pump tubes for sample (white/white tabs) and waste (blue/blue tabs).
	Agilent Technologies
G8010-68005	Volatile organics sample introduction kit for 5100 DV ICP-OES 1/pk.  Recommended for use with volatile organic solvents incl. gasoline.  Includes Conikal nebulizer, demountable Easy-fit torch with 0.8mm ID injector, solvent resistant drain tubing and Viton peristaltic pump tubes for sample (white/white tabs) and waste (blue/blue tabs).  Requires but does NOT include a cooled spray chamber. The IsoMist peltier cooled spray chamber is recommended.

Part Number	Description
These kits can I the user to adap (with inert comp	ts for 5100 RV (radial) ICP-OES Systems be ordered with the instrument, but are also available as after-market items. These allow of the instrument to handle different applications. There are kits available for HF digests bonents), semi-volatile organic solvents (such as ketone based solvents) and volatile is (such as gasoline).
G8010-68006	Inert sample introduction kit for 5100 RV ICP-OES 1/pk. Recommended for use with HF digests. Includes inert double pass spray chamber with ball joint socket, OneNeb nebulizer, Easy-fit torch inert demountable with ceramic injector (1.8mm ID), torch clamp for inert torch and SolvaFlex peristaltic pump tubes for sample (black/black tabs) and waste (gray/gray tabs).

Part Number	Description
G8010-68008	Semi-volatile organics sample introduction kit for 5100 RV ICP-OES 1/pk. Recommended for use with semi-volatile organic solvents incl. MIBK. Includes double pass glass cyclonic spray chamber with ball joint socket, Conikal nebulizer, demountable Easy-fit torch with 1.4mm ID injector, solvent resistant drain tubing and Marprene peristaltic pump tubes for sample (white/white tabs) and waste (blue/blue tabs).
	Agilent Technologies
G8010-68004	Volatile organics sample introduction kit for 5100 RV ICP-OES 1/pk. Recommended for use with volatile organic solvents incl. gasoline. Includes Conikal nebulizer, demountable Easy-fit torch with 0.8mm ID injector, solvent resistant drain tubing and Viton peristaltic pump tubes for sample (white/white tabs) and waste (blue/blue tabs). Requires but does NOT include a cooled spray chamber. The IsoMist peltier cooled spray chamber is recommended.

Part Number	Description
Operating Supplies Kits for 5100 DV ICP-OES  These kits will be available from 1 <sup>st</sup> September 2014.  There are separate kits for the SVDV/VDV and RV models. These kits are intended to provide the supplies required to support up to 12 months routine operation of the instrument. Extra supplies may be required for laboratories that have heavy instrument usage or are running high matrix samples.	
G8010-67001	Operating supplies kit for 5100 DV ICP-OES. Includes:  1 x Easy Fit Demountable Torch DV, 1.8mm injector 2 x Quartz outer tube sets for 5100 DV demountable torch 4 pks PVC peristaltic pump tubing for sample (12/pk white/white tabs) 4 pks PVC peristaltic pump tubing for waste (12/pk blue/blue tabs) 1 x Int. standard pump tubing & connectors 1 x SeaSpray nebulizer (U series) 1 pk Unifit connectors (0.75 mm ID) for nebulizer 1 pk EzyLok gas connectors for nebulizer 1 x Twister spray chamber with Helix fitting 1 pk Unifit connectors for spray chamber drain 1 x Spare clamp for the ball joint 1 x Spare pre-optic window for axial view 1 x Spare washer for the axial view pre-optic window assembly 1 x O-ring for the axial view pre-optic window assembly 1 x Spare pre-optic window for radial view 1 x Spare washer for the radial view pre-optic window assembly 2 x Barb connector, 1/16" id to 1/8" id 2 m Nebulizer capillary tubing 0.5 m PFA tubing for nebulizer gas supply 2 m Drain tubing for spillage on sample tray 1 pk Helix seal for spray chamber

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Part Number	Description
G8012-67001	Operating supplies kit for 5100 RV (radial) ICP-OES. Includes:  1 x Easy Fit Demountable Torch RV, 1.4mm injector  2 x Quartz outer tube sets for 5100 RV demountable torch  4 pks PVC peristaltic pump tubing for sample (12/pk white/white tabs)  4 pks PVC peristaltic pump tubing for waste (12/pk blue/blue tabs)  1 x Int. standard pump tubing & connectors  1 x SeaSpray nebulizer (U series)  1 pk Unifit connectors (0.75 mm ID) for nebulizer  1 pk EzyLok gas connectors for nebulizer  1 x Twister spray chamber with Helix fitting  1 pk Unifit connectors for spray chamber drain  1 x Spare clamp for the ball joint  1 x Spare pre-optic window for radial view  1 x Spare washer for the radial view pre-optic window assembly  2 x Barb connector, 1/16" id to 1/8" id  2m Nebulizer capillary tubing  0.5m PFA tubing for nebulizer gas supply  2m Drain tubing for waste liquid from spray chamber  1.5 m Drain tubing for spillage on sample tray  1 pk Helix seal for spray chamber

Part Number	Description
Wavelength Ca	libration Solutions for 5100 ICP-OES
6610030000	Checkout solution - Bottle wavelength calibration solution for ICP-OES and MP-AES 500 mL 50ppm  Required at all installations to enable the Agilent installation engineer to complete installation and performance tests as part of "installation and familiarization".  This solution is also required periodically by the user for wavelength calibration of the instrument.  Contains 50 mg/L Al, As, Ba, Cd, Co, Cr, Cu, Mn, Mo, Ni, Pb, Se, Sr, Zn and 500 mg/L K in 5 % HNO3 + trace HF.  500 mL bottle. Dilute 10 times prior to use.
6610030100	Bottle wavelength calibration solution for ICP-OES and MP-AES 500 mL 5ppm (ready to use)  Wavelength calibration solution for ICP-OES and MP-AES: 500 mL, contains 5 mg/L Al, As, Ba, Cd, Co, Cr, Cu, Mn, Mo, Ni, Pb, Se, Sr, Zn and 50 mg/L K in 5 % HNO3 + trace HF. Ready to use. 500 mL bottle.
5190-7001	Bottle calibration blank solution for ICP-OES and MP-AES 500 mL 0ppm Pure ASTM Type 1A water with 5 % HNO3 + trace HF. Suitable for use as a calibration blank or to use for dilution of the wavelength calibration solution. Ready to use. 500 mL bottle.

Part Number	Description	
5100 ICP-OES	5100 ICP-OES Miscellaneous Supplies	
G8010-60136	Argon gas inlet filter for 5100 ICP-OES Requires annual replacement. Customer replaceable.	
G8000-68002	Filter for the cooling air inlet on the instrument. Suits 5100 ICP-OES and MP-AES systems.	
G8010-60189	Replacement filter for the cooling air inlet on the 5100 ICP-OES Suits instruments fitted with the "Dusty Environment Air Inlet filter" option. Only a replacement filter element is supplied.	

Part Number	Description
Pre-optics window assembly for 5100 SVDV/VDV ICP-OES	Pre-optic window, axial view Washer, pre-optic window  O-ring, pre-optic window
G8010-60202 To be replaced by G8010-68014 eff. Sep 1 <sup>st</sup>	Replacement glass (calcium fluoride) for the axial view pre-optics window Suits the 5100 SVDV/VDV ICP-OES
G8010-20059 To be replaced by G8010-68016 eff. Sep 1st	Washer for the axial view pre-optics window assembly Suits the 5100 SVDV/VDV ICP-OES
0905-1911 To be replaced by G8010-68018 eff. Sep 1 <sup>st</sup>	O-ring for the axial view pre-optics window assembly Suits the 5100 SVDV/VDV ICP-OES

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Part Number	Description
G8010-60132 To be replaced by G8010-68015 eff. Sep 1 <sup>st</sup>	Replacement glass (calcium fluoride) for the radial view pre-optics window Suits the 5100 SVDV/VDV and RV ICP-OES
G8010-20062 To be replaced by G8010-68017 eff. Sep 1 <sup>st</sup>	Washer for the radial view pre-optics window assembly Suits the 5100 SVDV/VDV and RV ICP-OES
G8010-68011	PuraFlex transfer tube for IsoMist used with 5100 ICP-OES, 1/pk Required to connect the aerosol outlet from the IsoMist temperature controlled spray chamber (ROL configuration) to the Easyfit torch for the 5100 ICP-OES.
G1833-66024	Strainer for cooling water, 5100 ICP-OES

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Part Number	Description
G8010-20014 To be replaced by G8010-68109 eff. Oct 1 <sup>st</sup>	Pre-optics cone for 5100 ICP-OES, 1/pk
G8010-60089 To be replaced by G8010-68103 eff. Oct 1 <sup>st</sup>	Work coil assembly for 5100 ICP- OES, 1/p